National Institute of Environmental Health Sciences
2002 Annual COEP Meeting
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Hosted by:
University of Washington
Center for Ecogenetics and Environmental Health
Seattle, WA

Lessons Learned

Lessons learned
NIEHS Kresge Center for Environmental Health Science

In terms of lessons learned...community-based organizations have expectations of science that exceed the scientist's ability to respond. They are looking for answers to questions for which there is no definitive answer as yet. The slow pace of science seems in appropriate when people are ill and looking for help. The presence of the researcher in the community can be the rallying point for good community research or can create fracture lines in the community. The process must be managed carefully.

Center for Membrane Toxicity Studies, MDI Biological Laboratory (Salisbury Cove, Maine)
Lessons learned from community-based organizations and public groups

The Center for Membrane Toxicity Studies COEP at the Mount Desert Island Biological Laboratory (MDIBL) works with community-based organizations in two significant programs: a functioning Community Environmental Health Laboratory and by providing intensive high school, undergraduate and graduate education through research internships and courses. A weekly public outreach program offered on campus during the summer months has also attracted large crowds of vacationing families.

The Community Environmental Health Laboratory (CEHL) was established in the fall of 2000 as a collaborative project of MDIBL and a grassroots community organization, the MDI Water Quality Coalition. Over the last two years, the Community Laboratory has been a physical space where school groups have spent the day, or half day, conducting experiments, collecting data and analyzing the results. Adult volunteers have delivered and analyzed samples in the evening and teacher workshops have been held on weekends. The continuing projects investigate the health of the island watershed and its effect on toxic blooms of marine phytoplankton and the health of swimming beaches. Most of the lessons learned result from success, not failure. The core of the program—quality science and enthusiastic leadership—is highly successful. We attribute the success of the Community Lab to the leadership of the Coalition, and the outstanding relationship between the Coalition and the Center. The Executive Director of the Coalition, Dr. Jane Disney, worked for several years as an investigator at The Jackson Laboratory and then spent a decade teaching high school biology. Dr. Disney is well known on our small island as a dynamic teacher and advocate of directly engaging students through hands-on experience in science. At the Community Lab, Dr. Disney engages the students' sense of ownership to the project and the physical space. Summer interns at the Community Laboratory drive the project, with little 'over-the-shoulder' supervision from COEP or Coalition program managers. In the summer of 2001, students presented their research on the health of local swim beaches at a public forum held in the Bar Harbor, Maine city council chambers. The meeting certainly didn't result in any immediate changes to public policy, but did increase public awareness of potential health risks at beaches. The Community Lab is a pilot project that continues to evolve. The significant lesson learned is the importance of a vital leadership in the collaborating organization. In addition, the community group must be established or up-and-coming, with outstanding leadership and private funding. The Community Lab is another example of the importance of giving students a degree of ownership that translates into increased levels of parental interest, and potentially, funding.

Community groups support the Center's high school and undergraduate summer research programs. The Center works with the organization Maine Research Internships for Teachers and Students (MERITS) to place outstanding high school students in the laboratories of Center investigators. The students are funded by MERITS and participate in summer research programs at the Center. Research internships—high school, undergraduate, or graduate—are the forte of the Center COEP. This attached funding helps to support other students' internships by covering a large portion of common expenses like chaperones and activity funds. The collaboration is annual and clearly of mutual benefit to the Center and the MERITS program. The underlying, and very practical, lesson is that financial resources must be shared between the Center and the collaborating institution.

Finally, MDIBL and the Center host over 2,000 members of the public at 20 Wednesday programs during June, July and August. The public program begins with a video describing the Laboratory and it's Centers and is followed by a comprehendible biology lecture given by a summer investigator. Then, visitors are led to the Myers Marine Aquarium where a summer intern gives a hands-on touch tank demonstration. Colorful cartoon placards are displayed in the Aquarium demonstrating the effects of toxins on the environment and ultimately, human health. The Community Lab sets up a microscope station and is available to answer questions about environmental health. The obvious impact of the Wednesday tour is the intrusion of people into the work of Center investigators. Before steps were taken to reduce crowding and relocate the aquaria and touch tank, visitors often poked around labs, peered into doors and were an impediment to quiet research. To alleviate crowding and intrusions, a new aquarium was constructed away from the research laboratories, and the single Wednesday program was split into two smaller groups. While public outreach is vital to the center, COEP personnel should be cautious of the program's impact on the Center's scientific mission.

Oregon State University EHS Center and MFBS Center: Experiences/Lessons Learned
OSU is home to two National Institute of Environmental Health Sciences Centers: the Environmental Health Sciences (EHS) and the Marine/Freshwater Biomedical Sciences (MFBS) Center. The Centers focus on collaborative, interdisciplinary research to determine how environmental chemicals and other agents may be toxic to humans. Specific research conducted by EHS Center investigators helps provide a scientific basis for the prediction of human health risks from exposure to both natural and synthetic environmental chemicals.

In addition to scientific research, the EHS and MFBS Centers use their Community Outreach and Education Programs (COEP) to increase the public's ability to understand and make informed decisions on issues relevant to the role of environmental factors in human health and disease. The COEPs also strive to develop an understanding among the public of environmental health science research and its importance in assessing human health risks. Through community outreach and education, the Centers also increase the public's awareness of the resources of the NIEHS in general and the EHS Center at Oregon State University (OSU), specifically. To achieve these goals, the COEP enlists expertise of EHS Center investigators and actively collaborates with existing outreach programs, university programs, community organizations, and other NIEHS Center COEPs. The EHS Center COEP serves the Corvallis community, the state of Oregon, and regional and national audiences. Within the OSU community, the EHS Center COEP is recognized as a resource to offer programs in environmental health science, and COEP does this through many outreach mechanisms including informal and formal education programming, partnerships with science centers/museums, interactions with the media and community outreach events.

Media Outreach
Articles about different environmental health topics are featured in a local newspaper called *The Thymes*, which is printed by the local cooperative grocer – First Alternative Grocery. First Alternative has 7700 members and surveys show that about 50% member read The Thymes which is free and distributed throughout the Corvallis community. The articles are a joint effort of the NIEHS EHS Center and MFBS Center at OSU and feature the research being done at the Centers as well as general topics of environmental health interest. Articles to date include:

- What does the environment have to do with health? Everything!
- Diet, Cancer and Chlorophyllin – Another reason to eat your green vegetables
- Barbeque Season: A recipe for carcinogenic cuisine
- Test your environmental knowledge: Will you get a passing grade?
- What's your Environmental Myth?

In addition, EHS Center COEP director Nancy Kerkvliet periodically contributes "As I See It" columns to the Corvallis Gazette Times about topics that relate to environmental health in response to local reporting. Dr. Kerkvliet has observed that articles she has written have usually generated other letters to the editor critical of her position. Dr. Kerkvliet has concerns that the public will remember incorrect information because of the difficulty in refuting falsehoods promoted by the media. In contrast, OSU press releases about Dr. Kerkvliet's research have generated very little feedback. The OSU public relations contacts are very conscientious about how they present EHS Center research so as to not be sensationalist.

Community Events

In Corvallis, the EHS Center is recognized for sponsoring the yearly course, *Your Health and Chemical Risks* (YHCR). This course is attended by community members including the general public, local industry health and safety professionals, occupational nurses, county health department personnel, and others. These efforts, along with local EHS Center displays and Center Investigators' community presentations and lectures has brought a greater awareness of environmental health science and the EHS Center to the local community. The free course is open to the public and meets one night a week for six weeks. Attendees of this course have included members of the general public who want to learn about particular environmental health science issue or who just generally want information about environmental health. Attendees have also been from county extension service, the public health department, university students, nurses, teachers, members of a local cooperative grocer and a farm supply dealer. The course addresses a variety of environmental health concepts and issues. Speakers include Center scientists and professionals invited from the Corvallis community. Topics covered by Your Health and Chemical Risks course include cancer, diet and health, lead in the home environment, endocrine disruption, environmental health risks, city water quality, well water quality and nitrates, and others.

From 1999-2000, the YHCR course was offered through the adult education program of the local community college. This venue was chosen because community colleges in Oregon reach a broad audience of adults who are interested in continued learning but not necessarily at the college level where tuition is costly and courses are offered for credit. The community college environment is also a less intimidating environment for people who have never attended or visited a college campus before. YHCR was held once a week for 4-6 weeks in the evening at the local high school where many of the other adult education classes are held. This also resolves the parking issue which is sometimes a problem on college campuses.

YHCR was advertised through the community college course catalog which is printed several times per year. Additional mechanisms for advertising this course including the posting flyers at the public library, senior centers, daycares, churches, health food stores, the local health department, etc.

In the third year of the course, continuing education credit was offerred to nurses, sanitarians, and dieticians. Credit was granted from the oversite organizations of these professions (i.e. American Dietitic Association) with prior approval. One college credit from Oregon State University was also offered for a small fee ($40) through the departments of Public Health and Environmental and Molecular Toxicology. Offering professional continuing education credit was a useful mechanism for increasing course attendance.

NIEHS Center for Environmental and Rural Health
Texas A&M University

Center Directors Annual Meeting 2002

Experience and lessons learned working with various audiences (community-based organization, policy makers, and media).

The Community Outreach and Education Program (COEP) of the NIEHS Center for Environmental and Rural Health (CERH) at Texas A&M University is primarily an educational program focused on rural environmental health education at the level of community, and K-12 education. Among the audiences we have been able to work with are Promotoras, a community based organization, and the radio and TV media.

Our community-based organization consists of Promotoras (community educators) working along the Texas-Mexico border. Promotoras are trained by Center scientists on environmental health science, with the goal that they will pass on education to neighbors/residents in their communities. A cornerstone of this program is a bilingual culturally appropriate environmental health science curriculum rooted on a "Train the Trainer" model of education and outreach. The greatest strength of the program has been the direct participation of the Promotoras and colonia residents. Promotoras' knowledge has significantly increased after training sessions. As educators, Promotoras helped refine the education/outreach program for expansion to others colonias along the Texas-Mexico border. Based on written feedback from residents of the targeted community the "Train the Trainer" model of education and outreach has been successful. Ongoing work in the colonias is promoting strong partnership between and among colonia residents, community-based organizations, clinicians, public health professionals and researchers. These partnerships will leave a legacy of disease prevention, behavior modifications, and health promotion related to the environment in this region of the State of Texas.

The COEP experience with the radio and TV media has been a positive one. Among one of the services the COEP provides the local community of Bryan/College Station viewing area is the broadcast of a monthly TV segment focused on environmental health. Guests of this segment are center scientists, pediatricians, family physicians, and a pediatric dentist. The COEP provides coordination, selection topics, and preparation of materials needed for this segment. This segment has been aired for approximately three years, and all parties involved obtain significant benefits. The TV Station contributes with time and the CERH provides guests to help educate our community on environmentally-related issues.

COEP Director's Meeting 2002:

SWEHSC COEP Activities 2001-2002

Fall 2001

ToxRAP[1] - Multiple Presentations
IMPACTT[2] - curriculum and website development & Supervision of 3 CATTS[3] Fellows
EMPACT[4] Air – website completion
EMPACT[4] Water - website development (Recorded a PSA earlier in the year)
AzEE[5] Conference - Presentation
EH-STEP[6] Conference - Presentation
UCAB[7] – Membership, Tucson Airport Area Superfund Site

Winter, Spring and Summer 2002

ToxRAP[1] - Multiple Presentations
IMPACTT[2] – curriculum continuing development and website completion & Supervision of 5 CATTS[3] Fellows
EMPACT[4] Water - outreach materials and website development
UCAB[7] - Membership, Tucson Airport Area Superfund Site
Native American Science and Math Conference – Two Presentations "IMPACTT" & "Teaching Science to Native American Students"
SOT meeting in Nashville, TN - "Paracelsus Goes to School" Co-Presentation
Southern Arizona Regional Science Fair - Science fair judge
Pima County Earth Day Celebration – Presentation
Daughters-on-Campus-Day – Presentation "Blackworms"
SWEHSC - Science Fair Poster Presentation "Using the Web to Disseminate SWEHSC Research to the Community"
Annual Summer Teacher Weeklong Workshop - "Air Pollution"
Citywide Water Outreach Forum – Tucson, Arizona
Pima College & University of Arizona - Presentations – "Intro to Toxicology"
Curriculum Recognized by EH-Step (Environmental Health Sciences Training & Education Program) – "Cluster Busters- Ms. Ima Well – Colon Cancer"
REHS – Project and website initiation

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[1] (Toxicology, Risk Assessment, & Pollution)
[2] (Integrating Multiple Perspectives Across the Curriculum for Today and Tomorrow)
[3] (Collaboration to Advance Teaching Technology and Science)
[4] (Environmental Monitoring for Public Access and Community Tracking)

[5] (Arizona Environmental Education)
[6] (Environmental Health Sciences Training & Education Program)
[7] (Unified Community Advisory Board)

SWEHSC COEP Lessons Learned:

Working with K-12 Audiences:

Principals & Administrators

- Work closely with principals, they can make or break a program. But it also helps to have a district level administrator on your side.
- Work within the hierarchies that exist.
- Whatever you do, always make sure there is a benefit to the school or district and that it meets their goals.

Teachers

- Connect with the outstanding and inspired teachers. They may be limited in numbers, but they do exist.
- Most teachers I have worked with cannot or do not write curricula. Grants want teachers involved in producing classroom materials, but most teachers I've worked with are better implementers and editors than curriculum writers. Many teachers have wonderful ideas that they'd love to share, which an experienced curriculum writer can put onto paper.
- When promoting a science workshop for elementary level teachers, simplify the language and have a good sales pitch. Many elementary level teachers can be intimidated by science.

Working with the Public:

Community Organizations:

- Offer your assistance and ideas then stand back and let them come to you. Community organizations have to work through their own dynamics and issues, which can sometimes be frustrating as a participant. However, that process is very important for the group to form cohesion, leadership roles, an identity, and focus.
- Be consistent about attendance. You will be seen as supportive of the organization if you attend regularly and offer supportive and professional advice. If you cannot go make sure somebody represents you. You will have greater credibility.

University of Medicine and Dentistry of New Jersey and
Rutgers, The State University of New Jersey
Center for Environmental Health Sciences (Grant No. P30 ES05022)
National Institute of Environmental Health Sciences (NIEHS) Center of Excellence

SUMMARY OF EXPERIENCES

Community-Based Organizations: UMDNJ/Rutgers coordinated an NIEHS regional Town Meeting in 1998, designed to enhance communication between state and local health professionals, advocacy groups, children, teachers and the general public, focusing on such topics as environmental justice, urbanization and brownfields. The first of three community forums related to the World Trade Center tragedy was held on October 8, 2002 with additional community forums scheduled for December 10, 2002 and February 4, 2003. These community forums are targeted to residents of New Jersey who commute to New York City for work and/or tourism and focus on WTC environmental health research and related commuter concerns.

UMDNJ/Rutgers partnered with the Greater Newark Conservancy (Newark, New Jersey), a non-profit organization devoted to creating environmentally-safe neighborhoods through education and job training, community organizing and revitalization, to conduct train-the-trainer sessions so that their staff could train teachers on environmental health sciences materials. With Isles (Trenton, New Jersey), a nationally recognized non-profit organization working to foster self-sufficient families in sustainable communities, UMDNJ/Rutgers assisted in the development of a video on dust reduction. This video illustrates to community members how dust is brought into homes, the effects of exposure and the ways that dust can be reduced effectively and safely.

UMDNJ/Rutgers established a "laboratory community" in Perth Amboy, New Jersey, in 1997. The purpose was to investigate issues related to environmental exposure and to develop a model for academic programs to assist communities. In 1998, COEP members received Center pilot project funding to conduct a study of perceptions of neighborhood quality and environmental risk in a largely Hispanic neighborhood in Perth Amboy. The survey identified residents' preferences for how brownfields should be redeveloped and their willingness to participate in the redevelopment process.

UMDNJ/Rutgers worked in Jersey City, New Jersey, in conjunction with the Childhood Lead Exposure and Reduction Study (CLEARS), to examine the impact of health education on maternal knowledge of childhood lead poisoning and blood lead in young children. Lead RUMMY™, a card game, was developed to help lead prevention educators assess mothers' understanding of lead risk reduction and household safety and accident prevention and to foster further discussion.

Policy Makers: None

Media: UMDNJ/Rutgers routinely works with local media, newspaper and television, to provide expertise in environmental health sciences. This was especially apparent for UMDNJ/Rutgers with respect to the World Trade Center tragedy, when Center scientists were consulted for articles focusing on air monitoring and other testing related to the site.

COEP at the NIEHS Marine & Freshwater Biomedical Sciences Center at the University of Miami
Our COEP activities are focused on several audiences:

- Clinicians and patients with marine and freshwater toxin diseases
- Scientists, Media, and the General public interested in marine and freshwater toxin diseases and in marine models of human disease
- High School Teachers and Students involved in our NIEHS funded Environmental Health Curriculum called AMBIENT

Our major COEP outreach methodology is our NIEHS Center Website (www.rsmas.miami.edu/groups/niehs) and the AMBIENT Website (www.rsmas.miami.edu/groups/niehs/ambient). We also participate in a Marine and Freshwater Toxin Hotline (888-232-8635) through the South Florida Poison Information Center which responds to acute illness situations, provides information and reports diseases under surveillance to the Florida Department of Health. We have a Center Investigator oriented listserv (NIEHSCENTER@LISTSERV.MIAMI.EDU) which provides information on current environmental health issues, funding and learning opportunities, as well as listserves for the AMBIENT teachers and investigators; recently we have added Investigators from another NIEHS funded ARCH program with Florida International University to our Center Listserv.. We also provide speakers from our NIEHS Center Investigator group for local lectures and educational activities, and we provide educational materials both on the website and in hardcopy upon request.

Lessons Learned:

- **Clinicians and patients with marine and freshwater toxin diseases**

Clinicians and patients want easily accessible information to confirm diagnoses, provide treatment options, and indicate prognosis. In addition to the Center Website with downloadable PDF files, we will send a packet of educational materials through regular mail. We also answer specific questions sent through the Center Website (toxmaster@rsmas.miami.edu), telephone and regular mail.
One issue that comes up frequently is requests for expert testifying in medical legal situations. We provide educational materials for all parties as well as a list of possible scientific experts, however the COEP group does not involve itself directly in legal situations.

- **Scientists, Media, and the General public interested in marine and freshwater toxin diseases and in marine models of human disease**

These groups want information that is downloadable (although again we will provide an educational packet by regular mail) as well as contact via email, telephone and regular mail for specific questions. They also want linkages and specific referrals to experts and other sources of information. It is important in COEP to have a referral list of experts both locally and nationally concerning specific environmental health issues.

- **High School Teachers and Students involved in our Environmental Health Curriculum called AMBIENT**

The Teachers and other educators can access the AMBIENT curriculum by downloadable PDF files although we provide in special circumstances (such as an AMBIENT Training) hardcopies of the AMBIENT Modules. They also appreciate resources and linkages with other interesting environmental health based curriculum materials (such as ToxRap).

Future lessons:
We are organizing a NIEHS Town Meeting (see enclosed flyer) on "Oceans and Human Health: Risks and Remedies from the Sea" on Thursday February 27, 2003. The process of organizing this meeting is bringing us into contact with a wide range of individuals: VIPS, politicians, community leaders (both NGOs and Industry), government agencies, scientists, and the media.
Of note, several of the NIEHS COEP groups that have already organized their own NIEHS Town Meetings in the past have been exceedingly generous with their knowledge and experience --- THANK YOU!

Lessons Learned

Community Education and Outreach Program
UNC-CH Center for Environmental Health and Susceptibility

The activities of the UNC-CH COEP build on a 17-year history of serving as an environmental outreach unit of the School of Public Health that links university resources with the needs of North Carolina's community groups, governmental units and public schools teachers. The lessons below draw as well from work we do as the outreach programs for UNC-CH Superfund Basic Research Program and UNC-CH's new pan-university, Carolina Environmental Program.

Working with community groups: on-going and community driven

The key ingredient in sustaining effective working relationships with community groups has been building and maintaining on-going relationships based on responsiveness to groups' needs. This isn't always easy. You have to live down the reputation of universities for conducting research in communities with few direct benefits to the communities (1). Our first effort, which came at the suggestion of environmental groups, was establishing a *Scientists Register* to match groups' requests for technical assistance with university scientists. Thereafter, we initiated other programs at the suggestion of our community partners, including: student internships, teacher training, assistance to local governments, a bi-annual *Guide to NC Environmental Groups*, policy research for state agencies and finally a website and listservs that enable communication among groups and between groups and state agencies.

These longstanding relationships enabled us to quickly and effectively accomplish COEP goals. In our first year as a COEP, we were able to place students with community groups we knew well. Similarly, when the announcement of supplemental funding to develop educational materials on ethical, legal and social issues about gene-environment interaction was released we partnered with two organizations on our COEP's advisory committee. These groups--the Breast Cancer Coalition of North Carolina and the NC Occupational Safety and Health Project--helped write the grant and were funded for their work in help to develop materials, recruit participants and lead the workshops.

Working with policy makers and the media: impeccable, balanced and brief

The most critical issue for an outreach unit working in the policy arena is maintaining credibility. It is not an advocacy organization. Its responsibility is to ensure that the spectrum of scientific knowledge, including disagreements and uncertainties, are aired. If it maintains this role it can, when asked, help facilitate dialogue among disparate groups. Currently, the UNC-CH COEP is considering developing fact sheets on issues being researched by Center scientists that are of interest to policymakers (and community groups). These fact sheets would outline in 1-2 pages what is known about an issue including where there is scientific consensus and where there is disagreement. We are also considering sponsoring workshops for Center scientists and agency staff for issues in which the link between scientific findings and policy needs are discernable and in which Center scientists have the communication skills and interest in participating.

(1) Lynn, F.M. 2000. "Community-Scientist Collaboration in Environmental Research." American Behavioral Scientist. Vol. 44, No. 4: 649-663.

Role of the COEP in Working with the Media
University of Southern California/University of California, Los Angeles
Southern California Environmental Health Sciences Center, Los Angeles, CA
Center Director: John Peters, M.D. COEP Director, Andrea Hricko, MPH

Los Angeles continues to have the unfortunate reputation of being the most polluted city in the U.S. and, not coincidentally, a large percentage of Center scientists are conducting research on air pollution. Whenever the news media does a story on the health effects of air pollution in Southern California, reporters typically turn to the scientists at the Southern California Environmental Health Sciences Center (SCEHSC) as experts. Although other Center scientists generate significant news stories on cancer and other health outcomes, this one-page summary focuses on experiences of the COEP in working with the news media on air pollution issues.

During the course of a year, Center scientists may decide that 3-5 forthcoming air pollution papers warrant press attention. In these cases, the COEP Director* usually serves as a liaison between the Center Director, the study authors, and the university press office. This may involve discussing whether to issue a simple press release, hold a news conference, share the results initially with one key reporter, approach several key reporters at the same time without holding a news conference, etc. The COEP Director often participates in reviewing draft press releases and shepherding the draft release to ensure that key investigators have input and approve of the final version. When a story is expected to generate national attention, the COEP Director will also inform the NIEHS Press Office and Dr. Allen Dearry to allow the NIEHS to develop its own release. (Later, newstories are sent to Liam O'Fallon electronically for website posting as appropriate.)

A lesson learned: One problem that may arise is that some investigators are willing to participate in the initial press conference or flurry of phone calls before a story "breaks," but then feel (rightly) overwhelmed by the additional inquiries that the press stories generate. One Center paper in early 2002 [on cases of new asthma in children who play three or more sports in a polluted community] generated local, national & international attention – e.g., front page headline in the L.A. Daily News, featured in USA Today and on the BBC, etc. In the week after these stories broke, the lead author received perhaps 30 additional phone calls from reporters. A solution: the investigator prepared a Q&A of the most common questions that reporters had already asked, with answers, and e-mailed it to all the subsequent callers. It saved the busy investigator a lot of time and frustration.

COEP as convener: The principal reporter covering air pollution for L.A.'s major paper has agreed, at the invitation of the COEP Director (after discussions with the Center Director) to have lunch with key Center scientists as a means of looking toward future stories and having the reporter develop a better understanding of the range of research activities underway.

*This approach may not work for all COEP Directors. The SCEHSC COEP Director worked for a number of years as a television news producer and therefore has direct experience with the news media.

Experience in Working with Policy Makers on Diesel-Related Issues

University of Southern California/University of California, Los Angeles
Southern California Environmental Health Sciences Center, Los Angeles, CA
Center Director: John Peters, M.D. COEP Director, Andrea Hricko, MPH

Many SCEHSC scientists are engaged in policy matters involving environmental health issues. In Jan. 2002, SCEHSC Director John Peters and Assoc. Director John Froines testified at a hearing on Chromium 6 in Drinking Water, organized by Cong. Adam Schiff and the NIEHS. John Froines is Chair of the Scientific Review Panel of the California Air Resources Board, which makes recommendations on which chemicals should be declared "Toxic Air Contaminants (TACs)." Tom Mack and Anna Wu are appointees to the Carcinogen Identification Committee, with Mack serving as chair. Lourdes Baezconde-Garbanati serves on the California Tobacco Education and Research Oversight Committee, which oversees implementation of tobacco control policies.

The focus of this one-page description is on Center members' experiences in working with policy makers on diesel-related air pollution issues. Diesel exhaust exposure is a particularly serious problem in So. California, in part due to globalization and expansion of the Ports of L.A. and Long Beach, which results in a high percentage of traffic on freeways and arterials being diesel. At least 8 Center members have been engaged in these issues. Several years ago John Froines chaired the Scientific Review Panel that declared diesel to be a TAC in CA, prompting regulatory action. Duncan Thomas and Thomas Mack prepared risk assessment analyses on diesel as part of the deliberations. The truck traffic situation had become so acute that when the COEP organized the Town Hall Meeting in December 2001, the Port complex (L.A. and Long Beach) became one of the biggest issues on the "Open Mike" agenda. Not only Port community residents were concerned; so were residents in Mira Loma and other "Inland Empire" communities 50 miles away that receive the brunt of truck traffic heading to warehouses built to create "transfer stations" for goods from the Port heading elsewhere in the country.

The Town Hall Meeting spurred on community residents and Center scientists to focus attention and research on diesel exhaust risks. Rob McConnell, Ed Avol and Andrea Hricko tailored a USC undergraduate public health course to focus on the issue; the attention resulted in McConnell and Avol testifying at an Assembly Town Hall Meeting on Diesel Emissions at the Port. Avol was appointed to serve as an air pollution consultant to the Port Community Advisory Committee. An upcoming Riverside County Planning Commission hearing will focus on the contribution of Port activities to the Inland Empire's diesel-related air pollution problems. Both John Peters and John Froines will testify on research elucidating the diesel exhaust risks in the area. Peters will describe the results of the Children's Health Study, identifying Mira Loma as having the worst particulate air pollution of any of the 12 communities studied. The pollution is a result of pollution sources in L.A. as well as new local sources, such as the warehouses serving the expanded Port complex with the trucks they bring into the area. Center scientists are playing an important role in conducting research and sharing information on diesel exhaust health risk and health effects with policymakers and community residents.

Experiences in Working with Community-Based Groups

University of Southern California/University of California, Los Angeles
Southern California Environmental Health Sciences Center, Los Angeles, CA
Center Director: John Peters, M.D. COEP Director, Andrea Hricko, MPH

The COEP has extensive experience working with a variety of community-based, environmental health and justice organizations in the Southern California area. For the Center's NIEHS Town Hall Meeting (THM), co-sponsored with the Labor Occupational Safety and Health program at UCLA, more than 30 community-based organizations (CBOs) joined as partners. These groups were involved from the beginning in developing ideas for the THM, attending planning meetings, developing the agenda, etc.

Lessons learned/ideas about real ways to involve CBOs in outreach events: If you are planning a THM or community forum, invite key CBOs and other organizations to be full partners in your planning meetings. Rotate the meetings, so that they are in the office of a different organization each time. Consider sponsoring a session to give CBOs ideas on how to create exhibits for the THM. Find a local foundation to donate supplies. (We did this and it created a sense of ownership in the THM and pride in the exhibits). Involve community group representatives on "community issue panels" at all THMs or forums.

The SCEHSC also has partnerships involving grants with the following organizations:
1. **NIEHS Partnerships in Communication/EJ grants** with:
    a. Communities for a Better Environment. Extensive joint program educating L.A. Unified School District school nurses on environmental health and justice issues. Also, partner on THM and on COEP community forums.
    b**. Environmental Health Coalition**, San Diego. Joint implementation of an air pollution curriculum at San Diego H.S. each year; technical assistance on issues of air monitoring. Partner on NIEHS Town Hall Meeting and community forums.
2. A **technical assistance/mentoring relationship with Pacoima Beautiful**, a CBO working in the San Fernando Valley. This involved the COEP receiving a very small ($4000) grant from the Liberty Hill Foundation, as part of the foundation's EJ Mentoring Program. Pacoima Beautiful selected our COEP to work on a leadership development program with year-round h.s. students during their "off-track" month. We hired a recent college graduate to work with the youth. He implemented the ToxRAP™ curriculum "Mystery Illness Strikes the Sanchez Family." The COEP Director and the Outreach Coodinator spent numerous day with the students as well. The activity cemented an ongoing positive relationship between the COEP and Pacoima Beautiful.

Lessons learned: Be sure that any joint project between the COEP and the CBO is truly joint and one to which both groups are fully committed. It may take serious effort to find the intersection where the interests and skills of one group match those of the other. Work hard at defining roles as specifically as possible so that expectations can be met. Attend CBOs' public conferences and events, and invite your Center scientists to join you – even if you are not on the agenda -- in order to better understand their issues and concerns and to have the organizations get to know your Center better.